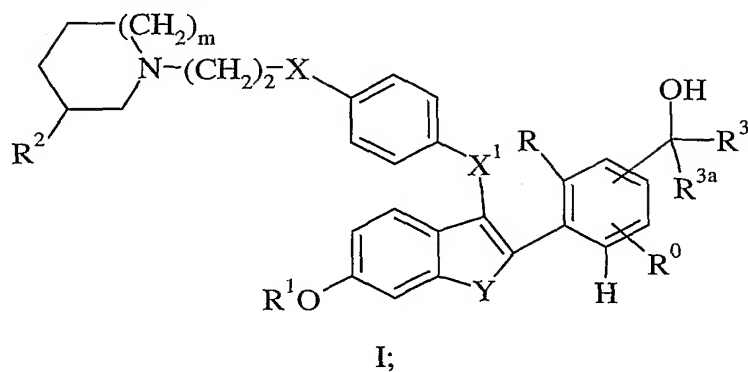


WE CLAIM:

1. A compound of formula I:



5 wherein:

m is 0, 1 or 2;

R^0 is H, F or OH;

R^1 is H, $\text{SO}_2(\text{n-C}_4\text{-C}_6 \text{ alkyl})$ or COR^4 ;

R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is

10 0, then R^2 must be methyl;

X is O or NR^5 ;

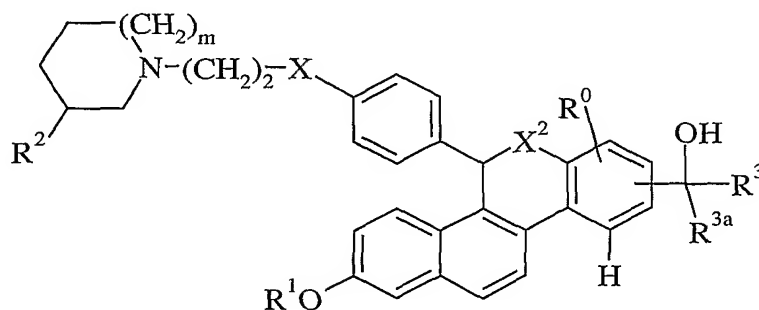
Y is S or CH=CH ;

R^4 is $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_1\text{-C}_6$ alkoxy, NR^6R^7 , phenoxy, or phenyl optionally substituted with halo;

15 R^5 is H or $\text{C}_1\text{-C}_6$ alkyl;

R^6 and R^7 are independently H, $\text{C}_1\text{-C}_6$ alkyl or phenyl;

R is H and X^1 is O, CH_2 or CO or R combines with X^1 to form a moiety of the formula:

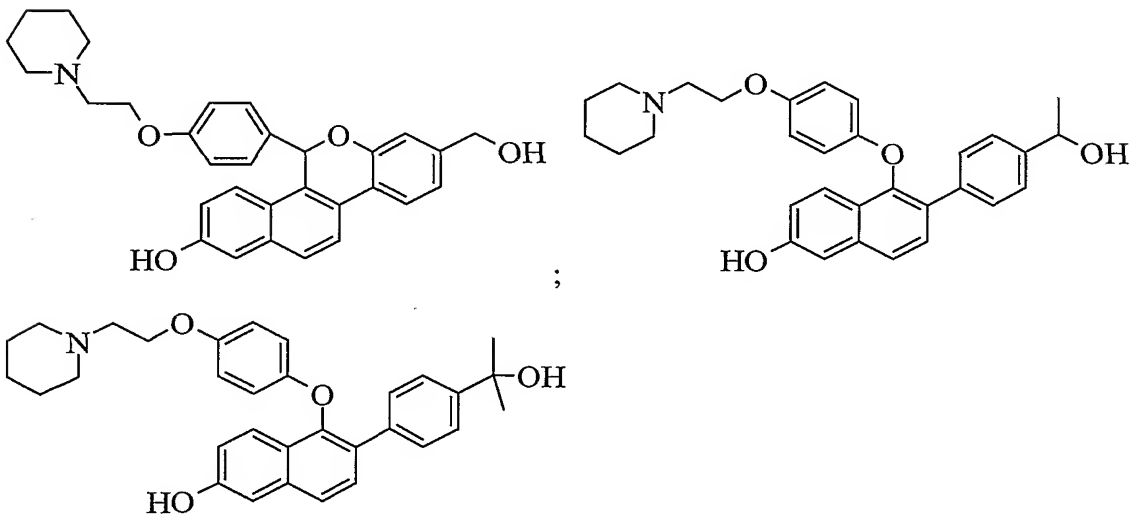


wherein X^2 is O or S; and

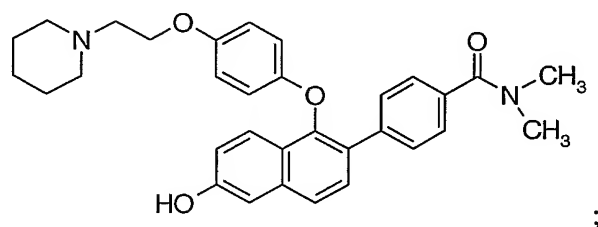
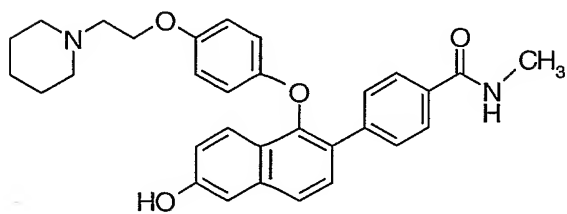
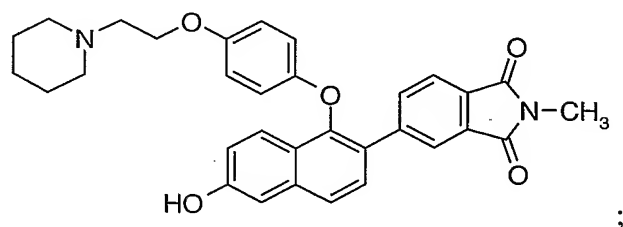
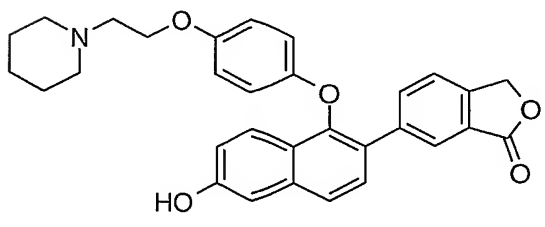
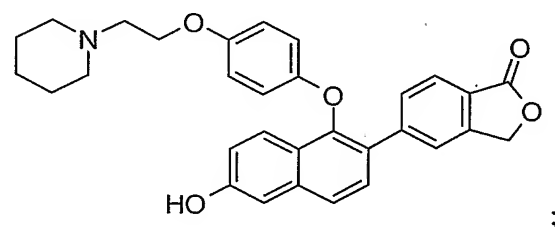
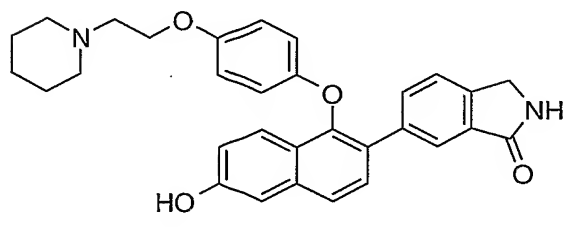
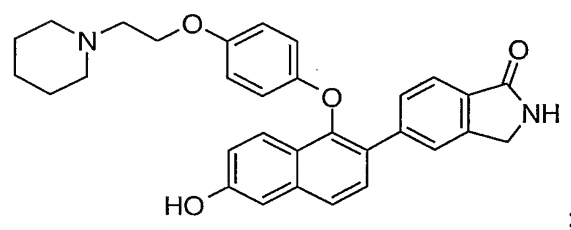
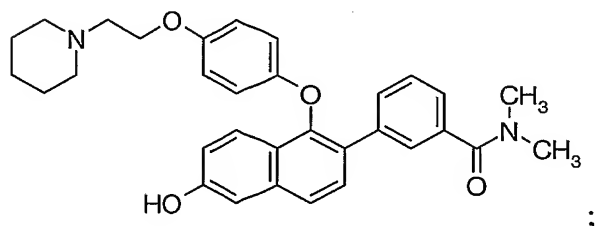
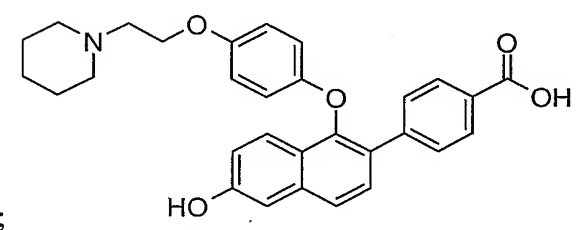
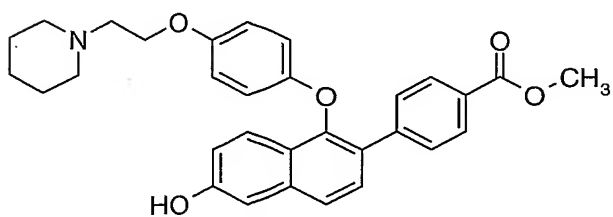
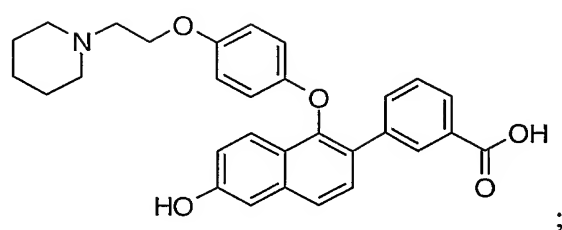
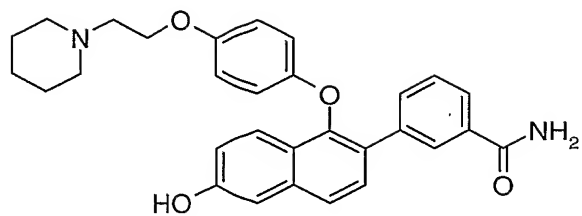
R^3 and R^{3a} are independently H or C_1-C_6 alkyl; or a pharmaceutical acid addition salt thereof.

- 5 2. The compound of claim 1 wherein R^0 is H.
3. The compound of claim 2 wherein R is H.
4. The compound of claim 3 wherein X and X^1 are O and m is 1 or 2.
- 10 5. The compound of claim 3 or claim 4 wherein R^1 is H or COR^4 and R^4 is C_1-C_4 alkyl, $NHCH_3$ or phenyl.
6. The compound of any one of claims 3-5 wherein R^1 is H.
- 15 7. The compound of any one of claims 3-6 wherein Y is $CH=CH$ and m is 1.
8. The compound of any one of claims 3-7 wherein R^3 and R^{3a} are independently H or C_1-C_4 alkyl.
- 20 9. The compound of any one of claims 3-8 wherein R^3 and R^{3a} are independently H or methyl.
10. The compound of any one of claims 3-9 wherein the $COHR^3R^{3a}$ moiety is at position 4.
- 25 11. The compound of claim 2 wherein R combines with X^1 .
12. The compound of claim 11 wherein X and X^2 are O and m is 1 or 2.
- 30

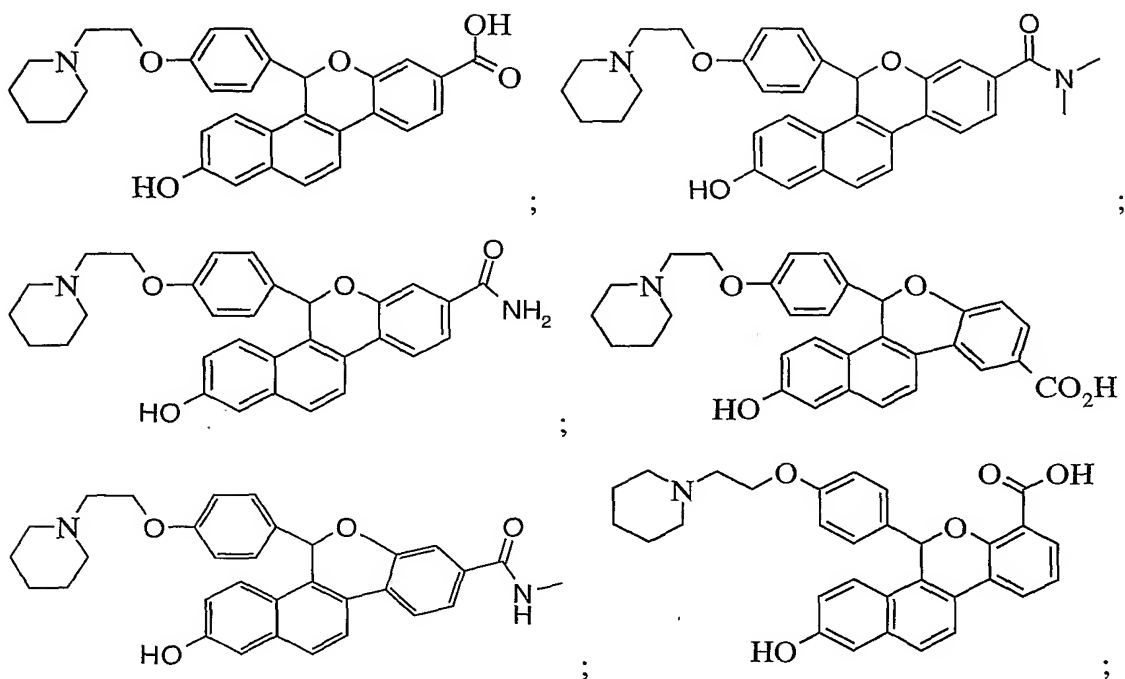
13. The compound of claim 11 or claim 12 wherein R^1 is H or COR^4 and R^4 is C_1 - C_4 alkyl, $NHCH_3$ or phenyl.
14. The compound of any one of claims 11-13 wherein R^1 is H and m is 1.
15. The compound of any one of claims 11-14 wherein R^3 and R^{3a} are independently H or C_1 - C_4 alkyl.
16. The compound of any one of claims 11-15 wherein R^3 and R^{3a} are independently H or methyl.
17. The compound of any one of claims 11-16 wherein the $COHR^3R^{3a}$ moiety is at position 4.
18. A compound selected from the group consisting of:



or a pharmaceutical acid addition salt thereof; or a compound selected from the group consisting of:



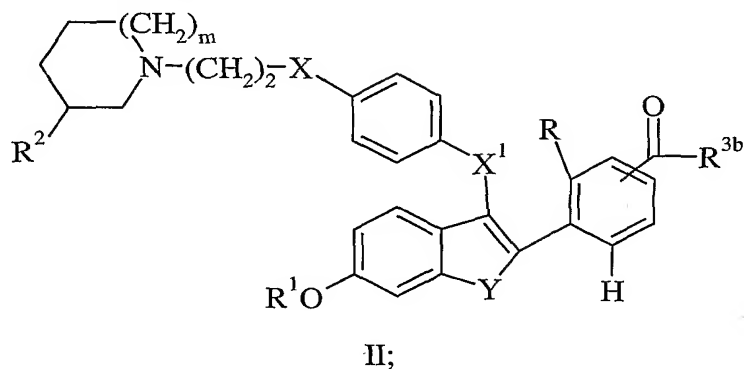
-95-



or a pharmaceutical salt thereof.

5

19. A compound of formula II:



wherein:

10

m is 0, 1 or 2;

R¹ is H, SO₂(n-C₄-C₆ alkyl) or COR⁴;

R² is H or methyl provided that if m is 1 or 2, then R² must be H and that if m is 0, then R² must be methyl;

X is O or NR⁵;

15

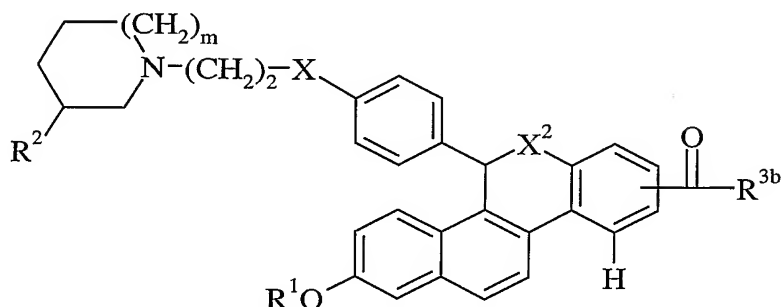
Y is S or CH=CH;

R^4 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^6R^7 , phenoxy, or phenyl optionally substituted with halo;

R^5 is H or C_1 - C_6 alkyl;

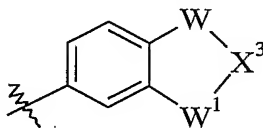
R^6 and R^7 are independently H, C_1 - C_6 alkyl or phenyl;

5 R is H and X^1 is O, CH_2 or CO or R combines with X^1 to form a moiety of the formula:



wherein X^2 is O or S;

10 R^{3b} is NR^8R^9 or OR^{10} or when R is H, R^{3b} may combine with the phenyl with which it is attached to form a moiety of the formula:



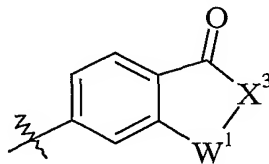
wherein W and W^1 are CH_2 or $C=O$ provided that at least one of W or W^1 must be $C=O$; and X^3 is NR^{11} or O; and

15 R^8 and R^9 are independently H or C_1 - C_6 alkyl or R^8 and R^9 may combine with the nitrogen to which they are both attached to form a morpholino, pyrrolidino or piperidino ring;

R^{10} and R^{11} are independently H or C_1 - C_6 alkyl; or a pharmaceutical salt thereof.

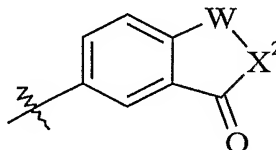
20 20. The compound of claim 19 wherein R^8 and R^9 are independently H or C_1 - C_6 alkyl.

21. The compound of claim 20 wherein X and X¹ are O and m is 1 or 2.
22. The compound of claim 20 or claim 21 wherein R¹ is H or COR⁴ and R⁴ is C₁-C₄ alkyl, NHCH₃ or phenyl.
23. The compound of any one of claims 20-22 wherein R¹ is H.
24. The compound of any one of claims 20-23 wherein Y is CH=CH.
25. The compound of any one of claims 20-24 wherein the COR^{3b} moiety is at the 3- or 4-position.
26. The compound of any one of claims 20-25 wherein the COR^{3b} moiety is at the 4-position.
27. The compound of any one of claims 20-26 wherein R^{3b} is NR⁸R⁹ and R⁸ and R⁹ are independently H or C₁-C₄ alkyl.
28. The compound of any one of claims 20-26 wherein R^{3b} is OR¹⁰ and R¹⁰ is H or C₁-C₄ alkyl.
29. The compound of any one of claims 20-26 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



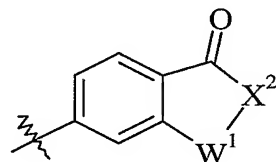
and W¹ is CH₂ and X³ is NR¹¹ and R¹¹ is H.

30. The compound of any one of claims 20-26 wherein R is H and R³ combines with the phenyl with which it is attached to form:



and R⁸ is H or C₁-C₄ alkyl.

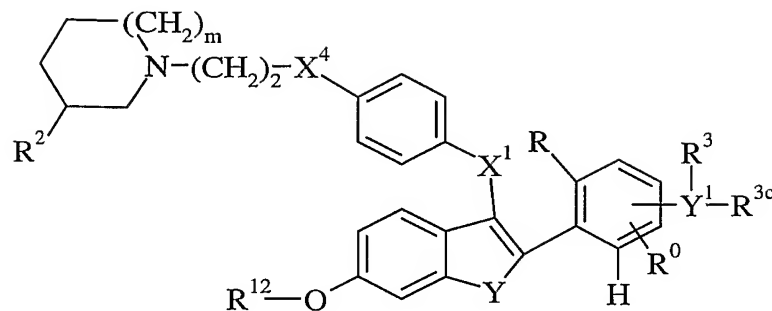
31. The compound of any one of claims 20-26 wherein R is H and R³ combines with the phenyl with which it is attached to form:



and R⁸ is H or C₁-C₄ alkyl.

32. The compound of any one of claims 1-31 which is the hydrochloride salt.
33. A method of treating endometriosis comprising administering to a patient in need thereof an effective amount of a compound of any one of claims 1-32.
34. A method of treating uterine leiomyoma comprising administering to a patient in need thereof an effective amount of a compound of any one of claims 1-32.
35. A compound of any one of claims 1-32 for use in treating endometriosis and/or uterine leiomyoma.
36. A compound of formula III:

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III;

wherein:

m is 0, 1 or 2;

5 R^0 is H, F or OH;

R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

Y is S or CH=CH;

Y^1 is C=O or C(OH);

10 R^3 is H or C₁-C₆ alkyl;

R^{3c} is absent or is H or C₁-C₆ alkyl provided that if Y^1 is C(OH), then R^{3c} is H or C₁-C₆ alkyl and that if Y^1 is C=O, then R^{3c} is absent;

R^{12} is H, C₁-C₆ alkyl, benzyl, SO₂CH₃, SO₂(n-C₄-C₆ alkyl) or COR⁴;

X^4 is O or NR¹³;

15 R^4 is C₁-C₆ alkyl, C₁-C₆ alkoxy, NR⁶R⁷, phenoxy, or phenyl optionally substituted with halo;

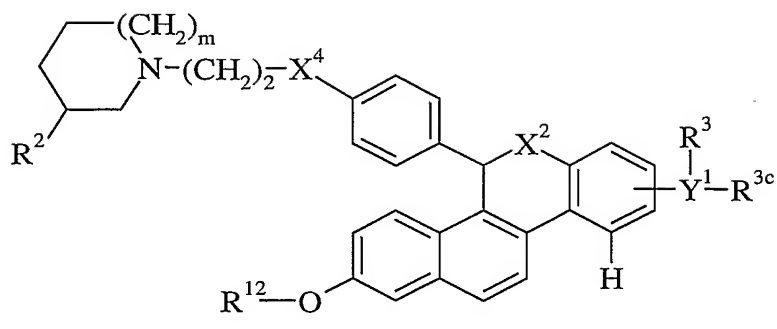
R^6 and R^7 are independently H, C₁-C₆ alkyl or phenyl;

R^{13} is H, C₁-C₆ alkyl or CO₂(C₁-C₆ alkyl); and

R is H and X^1 is O, CH₂ or CO or R combines with X^1 to form a moiety of the

20 formula:

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wherein X^2 is O or S;

provided that if Y^1 is C(OH), then R^{12} is C_1 - C_6 alkyl, SO_2CH_3 or benzyl or X^4 is NR^{13} and R^{13} is $CO_2(C_1$ - C_6 alkyl); or an acid addition salt thereof.

5

37. The compound of claim 36 wherein R^0 is H.

38. The compound of claim 37 wherein R is H.

10

39. The compound of claim 38 wherein X^4 and X^1 are O and m is 1 or 2.

40. The compound of claim 38 or claim 39 wherein R^{12} is SO_2CH_3 , benzyl or methyl.

15

41. The compound of any one of claims 38-40 wherein Y is $CH=CH$ and m is 1.

42. The compound of any one of claims 38-41 wherein R^3 and R^{3c} are independently H or C_1 - C_4 alkyl.

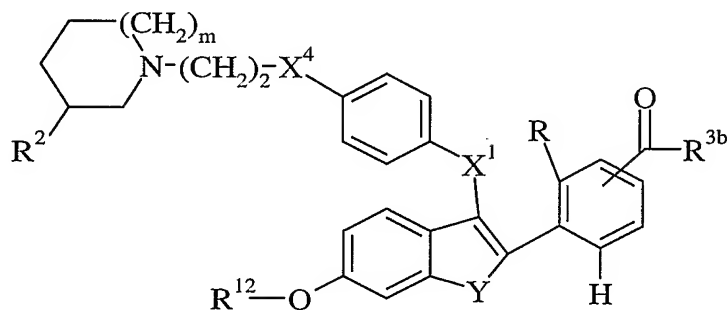
20

43. The compound of any one of claims 38-42 wherein R^3 and R^{3c} are independently H or methyl.

44. The compound of any one of claims 38-43 wherein the $Y^1R^3R^{3c}$ moiety is at position 4.

25

45. The compound of claim 37 wherein R combines with X¹.
46. The compound of claim 45 wherein X⁴ is O and m is 1 or 2.
47. The compound of claim 45 or claim 46 wherein R¹² is SO₂CH₃, benzyl or methyl.
48. The compound of any one of claims 45-47 wherein X² is O and m is 1.
49. The compound of any one of claims 45-48 wherein R³ and R^{3c} are independently H or C₁-C₄ alkyl.
50. The compound of any one of claims 45-49 wherein R³ and R^{3c} are independently H or methyl.
51. The compound of any one of claims 45-50 wherein the Y¹R³R^{3c} moiety is at position 4.
52. A compound of formula IV:



IV;

wherein:

m is 0, 1 or 2;

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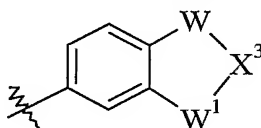
R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

Y is S or CH=CH;

Y^1 is C=O or C(OH);

5 R^{12} is H, C_1 - C_6 alkyl, benzyl, SO_2CH_3 , $SO_2(n-C_4-C_6 \text{ alkyl})$ or COR^4 ;

R^{3b} is NR^8R^9 or OR^{10} or when R is H, R^{3b} may combine with the phenyl with which it is attached to form a moiety of the formula:



10 wherein W and W¹ are CH₂ or C=O provided that at least one of W or W¹ must be C=O; and X³ is NR^{11} or O;

X⁴ is O or NR^{13} ;

R^4 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^6R^7 , phenoxy, or phenyl optionally substituted with halo;

R^6 and R^7 are independently H, C_1 - C_6 alkyl or phenyl;

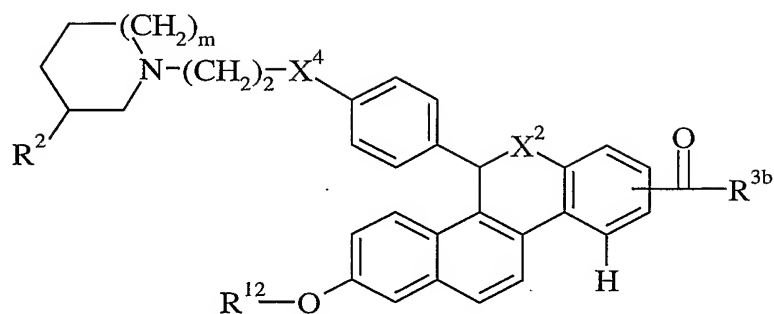
15 R^8 and R^9 are independently H or C_1 - C_6 alkyl or R^8 and R^9 may combine with the nitrogen to which they are both attached to form a morpholino, pyrrolidino or piperidino ring;

R^{10} and R^{11} are independently H or C_1 - C_6 alkyl;

R^{13} is H, C_1 - C_6 alkyl or $CO_2(C_1-C_6 \text{ alkyl})$; and

20 R is H and X¹ is O, CH₂ or CO or R combines with X¹ to form a moiety of the formula:

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wherein X^2 is O or S;

provided that if R^{12} is H, $SO_2(n-C_4-C_6 \text{ alkyl})$ or COR^4 , then X^4 is NR^{13} and R^{13} is $CO_2(C_1-C_6 \text{ alkyl})$; or an acid addition salt thereof.

5

53. The compound of claim 52 wherein R^8 and R^9 are independently H or C_1-C_6 alkyl.

54. The compound of claim 53 wherein X^4 and X^1 are O and m is 1 or 2.

10

55. The compound of claim 53 or claim 54 wherein R^{12} is SO_2CH_3 , benzyl or methyl.

56. The compound of any one of claims 53-55 wherein Y is $CH=CH$.

15

57. The compound of any one of claims 53-56 wherein the COR^{3b} moiety is at the 3- or 4-position.

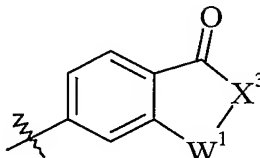
58. The compound of any one of claims 53-57 wherein the COR^{3b} moiety is at the 4-position.

20

59. The compound of any one of claims 53-58 wherein R^{3b} is NR^8R^9 and R^8 and R^9 are independently H or C_1-C_4 alkyl.

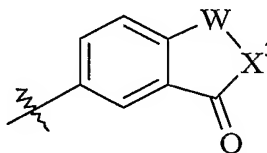
60. The compound of any one of claims 53-59 wherein R^{3b} is OR^{10} and R^{10} is H or C_1-C_4 alkyl.

61. The compound of any one of claims 53-60 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



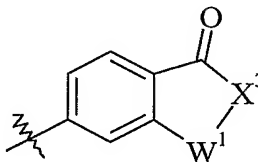
and W^1 is CH_2 and X^3 is NR^{11} and R^{11} is H.

62. The compound of any one of claims 53-60 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



and R^{11} is H or C_1-C_4 alkyl.

63. The compound of any one of claims 53-60 wherein R is H and R^{3b} combines with the phenyl with which it is attached to form:



and R^{11} is H or C_1-C_4 alkyl.